

What is claimed is:

1. A method for driving a plasma display panel in which one frame is replaced with a plurality of sub-frames
5 for display, the method comprising:

replacing one frame with first sub-frames for lighting only an area other than a part of a screen and a second sub-frame for lighting only a section of the screen other than the area when the area is used to display a
10 picture having an aspect ratio different from that of the screen; and

controlling luminance in the first sub-frames and luminance in the second sub-frame independently of each other.

15 2. The method according to claim 1, wherein amount of light emission of each cell in display of the second sub-frame is fixed and amount of light emission of each cell in display of the first sub-frames is adjusted depending on variation in brightness of a picture so that
20 power consumption of the plasma display panel avoids exceeding a set value.

3. The method according to claim 1, further comprising:

assigning a reset period for equalizing wall charge
25 in a plurality of cells, an address period for associating the wall charge in each of the cells with display data and a display period for generating display discharge to the second sub-frame and each of the first sub-frames; and

making the reset period in the second sub-frame
30 shorter than the reset period in each of the first sub-

frames.

4. The method according to claim 1, further comprising:

5 assigning a reset period for equalizing wall charge in a plurality of cells, an address period for associating the wall charge in each of the cells with display data and a display period for generating display discharge to each of the first sub-frames; and

10 assigning the address period for associating the wall charge in each of the cells with the display data and the display period for generating the display discharge to the second sub-frame.

5. The method according to claim 1, further comprising:

15 assigning an address period for associating wall charge in each cell with display data and a display period for generating display discharge to the second sub-frame and each of the first sub-frames; and

20 generating address discharge in a plurality of rows simultaneously during the address period in the second sub-frame.

25 6. The method according to claim 1, wherein amount of light emission of each cell in display of the second sub-frame is adjusted depending on variation in brightness of a picture.

7. A method for driving a plasma display panel in which one frame is replaced with a plurality of sub-frames for display, the method comprising:

30 replacing a frame selected in accordance with a set rule with first sub-frames for lighting only an area other

than a part of a screen and a second sub-frame for lighting only a section of the screen other than the area when the area is used to display a picture having an aspect ratio different from that of the screen;

5 replacing unselected frames with the first sub-frames; and

 controlling luminance in the first sub-frames and luminance in the second sub-frame independently of each other.

10 8. The method according to claim 7, wherein amount of light emission of each cell in display of the second sub-frame is fixed and amount of light emission of each cell in display of the first sub-frames is adjusted depending on variation in brightness of a picture so that
15 power consumption of the plasma display panel avoids exceeding a set value.

 9. The method according to claim 7, further comprising:

 assigning a reset period for equalizing wall charge
20 in a plurality of cells, an address period for associating the wall charge in each of the cells with display data and a display period for generating display discharge to the second sub-frame and each of the first sub-frames; and

 making the reset period in the second sub-frame
25 shorter than the reset period in each of the first sub-frames.

 10. The method according to claim 7, further comprising:

 assigning a reset period for equalizing wall charge
30 in a plurality of cells, an address period for associating

the wall charge in each of the cells with display data and a display period for generating display discharge to each of the first sub-frames; and

5 assigning the address period for associating the wall charge in each of the cells with the display data and the display period for generating the display discharge to the second sub-frame.

11. The method according to claim 7, further comprising:

10 assigning an address period for associating wall charge in each cell with display data and a display period for generating display discharge to the second sub-frame and each of the first sub-frames; and

generating address discharge in a plurality of rows
15 simultaneously during the address period in the second sub-frame.

12. The method according to claim 7, wherein amount of light emission of each cell in display of the second sub-frame is adjusted depending on variation in brightness
20 of a picture.

13. A plasma display device for replacing one frame with a plurality of sub-frames to display, the device comprising:

a data processing circuit for replacing one frame
25 with first sub-frames for lighting only an area other than a part of a screen and a second sub-frame for lighting only a section of the screen other than the area when the area is used to display a picture having an aspect ratio different from that of the screen; and

30 a controller for controlling luminance in the first

sub-frames and luminance in the second sub-frame independently of each other.

14. A plasma display device for replacing one frame with a plurality of sub-frames to display, the device
5 comprising:

a data processing circuit for replacing a frame selected in accordance with a set rule with first sub-frames for lighting only an area other than a part of a screen and a second sub-frame for lighting only a section
10 of the screen other than the area when the area is used to display a picture having an aspect ratio different from that of the screen, and for replacing unselected frames with the first sub-frames; and

a controller for controlling luminance in the first
15 sub-frames and luminance in the second sub-frame independently of each other.